SERVICE MANUAL & PARTS LIST (without price)

SF-4700L (ZX-454 A,B)
SF-4900L (ZX-454 E,F)

JUL. 1997

SF-4700L

INDEX

CASIO®

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1. SPECIFICATIONS

Memory Capacity

Memory capacity differs according to model. The following shows the memory capacity for each available model.

Model	Memory
SF-4700L	64K bytes
SF-4900L	128K bytes

The following shows the number or items that can be stored in each model (SF-4700L/4900L).

Telephone Directory

Approximately 2900 (SF-4700L)/6000 (SF-4900L), under the following conditions:
8-character name
10-character telephone number

Approximately 1400 (SF-4700L)/3000 (SF-4900L), under the following conditions:
8-character name
10-character telephone number
20-character address

Memo

Approximately 2700 (SF-4700L)/5700 (SF-4900L), 20-character memos.

Schedule Keeper

Approximately 1800 (SF-4700L)/3800 (SF-4900L), under the following conditions:
1 item per day, 20 characters per item
30 days per month
Starting time specified,alarm time set

Approximately 2100 (SF-4700L)/4500 (SF-4900L), under the following conditions:
1 item per day, 20 characters per item
30 days per month
Starting time specified, no alarm time

Reminder

Approximately 3600 (SF-4700L)/7400 (SF-4900L), under the following conditions:
10 characters per item
Alarm time set

Approximately 4000 (SF-4700L)/8400 (SF-4900L), under the following conditions:
10 characters per item
No alarm time

Main Modes:

Telephone Directory, Memo, Schedule Keeper, Reminder, Calendar, Home Time, World Time and Calculator

Data Storage:

Storage and recall of telephone, memo, schedule, reminder data; calendar display; secret area; editing; memory status display

Clock:

Worldtime; reminder alarm; schedule alarm; daily alarm; accuracy under normal temperatures: average ±3 seconds per day

Calculation:

10-digit arithmetic calculations; arithmetic constants (+, –, ×, ÷); independent memory; percentages; square roots; 20-digit approximations; date calculations; other mixed calculations

General:

Display element: 16-column × 4-line LCD

Main component: LSI

Power supply: Three lithium batteries (CR2032)

Current consumption:

Telephone top menu (Backlight from EL doesn't shine)-
600 μA (MAX.)
Telephone top menu (Backlight from EL shines)-
12.6 mA (MAX.)
OFF- 19 μA (MAX.)

Low battery message: 7.2 V ± 2.5%

Forced power off: 6.7 V ± 2.5%

Battery life:

- Approximately 300 hours of continuous display only in Telephone Mode.
- Approximately 170 hours with 55 minutes of continuous display only and 5 minutes of processing operation per hour.
- Approximately 110 hours with 55 minutes of continuous display only and 5 minutes of processing operation per hour, plus 3 minutes of backlight operation per hour during continuous display only period.

Power consumption: 0.2 W

Auto power off: Approximately 6 minutes after last key operation

Operating temperature: 0 °C ~ 40 °C (32 °F ~ 104 °F)

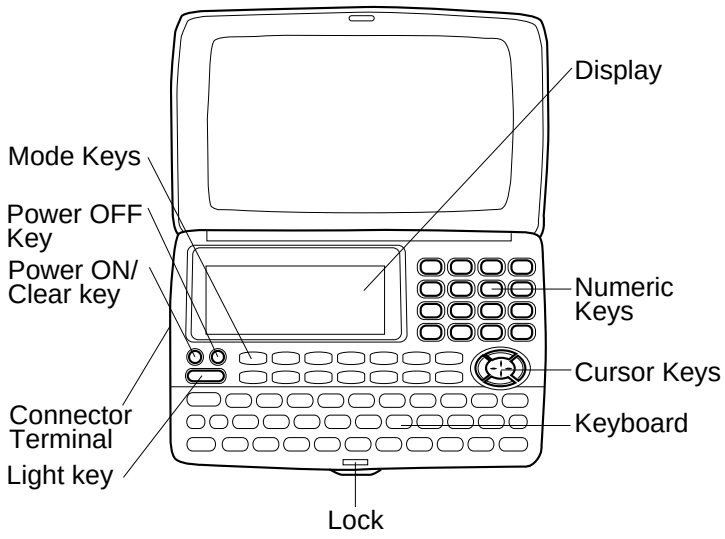
Dimensions:

Unfolded: 11 H × 152.5 W × 181.5 D mm ($^{3}/_{8}$" H × 6" W × $7^{1}/_{8}$" D)
Folded: 15 H × 152.5 W × 93 D mm ($^{5}/_{8}$" H × 6" W × $3^{5}/_{8}$" D)

Weight: 138 g (4.9 oz) including batteries

2. GENERAL GUIDE

The following illustration shows the names of the main controls of the SF-4700L/4900L.



Setting Up the SF Unit

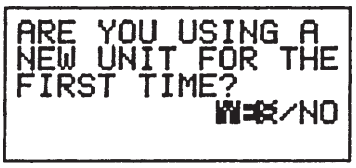
After batteries are loaded, use the following procedures to set up the SF Unit for operation.

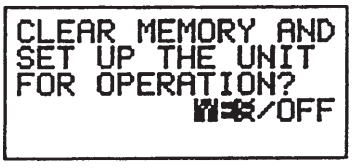
To switch power on and off

1. Press **ON** to switch power on.

- The initial screen for the mode that was seleted when you last switched power off appears on the display.
- If either of the messages (A or B) shown bellow appears on the display, follow the procedures described bellow.

Whenever you turn on the power of the SF Unit ,it performs a self-check before beginning operation. If a problem is discovered during the self-check, the SF Unit displays one of the following messages.





Note

- The above messages always appear in English, regardless of the system language setting.

If this is the first time you ever turned on the SF Unit...
Perform the RESET OPERATION on page 9.

If this is not the first time you are using the SF Unit...
There is probably a problem with the data in memory (data error). Note that once data is lost it cannot be recovered. Such data errors are generally caused by one of the following problems.

- Interruption of battery power.
- Severe electrostatic charge, impact, change in temperature, or change in humidity.
- Hardware problem.

After a data error is discovered, you will not be able to input or edit data. In order to return memory to normal (allowing further input and editing of data), you must perform the RESET operation to clear the memory of all data. Before doing so, you may want to recall important data and write it down (if you don't already have a copy). You can then re-input the data after clearing the memory.
The RESET procedure you should use depends on the type of message error message on the display.

"**ARE YOU USING A NEW UNIT FOR THE FIRST TIME ?"**

1. Make sure that **NO** is highlighted and then press **set**. If **YES** is highlighted, press ▶ to move the highlighting to **NO** and then press **SET**.
- The message "**DATA ERROR ! CHECK YOUR USER'S GUIDE FOR PROCEDURE !**" appears on the display at this time.After this message appears, you can press **CLEAR** to clear it from the display and recall data in order to make a back-up record of it before continuing.
2. Press the RESET button, which is located inside the battery compartment cover on the back of the unit.
- This causes the "**CLEAR MEMORY AND SET UP THE UNIT FOR OPERATION ?**" message to appear on the display.
3. Press ◀ to move the highlighting to **YES** and then press **SET** to reset the uint.
- Highlighting **NO** and pressing **SET** clears the reset message and displays the Home Time screen.

"**CLEAR MEMORY AND SET UP THE UNIT FOR OPERATION ?**"

1. Make sure that **YES** is highlighted. If **OFF** is highlighted, press ◀ to move the highlighting to **YES**.
- Highlighting **OFF** and pressing **SET** turns off the unit without resetting the unit.
2. Press **SET** to reset the unit.

If you still have trouble after trying the RESET operation, you may have a hardware problem.

- If a low battery power message appears on the display or if the display remains blank when you turn power on, replace batteries as soon as possible.

2. press **OFF** to switch power off.

About Auto Power Off function...

The SF Unit is equipped with an Auto Power Off function that switches power off automatically whenever you do not perform any key operation for about six minutes. To restore power, press **ON**.

To turn on the EL backlight

There are two ways to turn on the backlight of the display.
Pressing **LIGHT** causes the backlight to turn on for about 15 seconds, and then turn off automatically.
Pressing **SHIFT** and then **LIGHT** also turns on the backlight, but in this case the backlight stays on as long as you keep performing key operations on the SF Unit .
The backlight turns off automatically if you do not perform any key operation for about 15 seconds.
Leaving the backlight on for long periods greatly reduces battery life!
You can manually turn the backlight off by pressing **LIGHT** again.
Failure of the backlight to turn on indicates low battery power. Replace batteries as soon as possible.

To adjust the display contrast

1. Enter the Telephone Directory Mode.
- You could enter any mode except the Calculator mode here.
2. Press **SHIFT CONT**.
3. Use the ◀ and ▶ keys to adjust the contrast.

4. After you are finished, press **ESC** to clear the contrast abjustment display.

To select a mode

Press one of the mode keys to select the mode you want.

TEL	Telephone Directory mode for storage of telephone numbers, name, addresses, and six user-definable entries.
MEMO	Memo mode for storage of unformatted data in a kind of electronic notebook.
SCHEDULE	Schedule Keeper mode for storage of appointments scheduled for specific dates and times, and setting of Schedule Alarms to remind you of your appointments.
CALENDAR	Displays any monthly calendar from January 1901 through December 2099.
HOME/WORLD	Home Time/World Time modes for display of the current time in your hometown and other locations around the globe. For example, you can set New York as your home time and London as the world time.
REMINDER	Reminder mode to create reminders and alarms for annual, monthly, and daily events.
CAL	Calculator mode for basic calcuations with the touch of a key.

To check the memory status

Press **SHIFT** and then hold down **CAPA** to display a screen that shows the current memory status. To clear the memory status display, release **CAPA**.

You can enter any mode except the calculator Mode and Home/World Time Mode here

Remaining memory capacity

Total number of characters stored in memory

Note

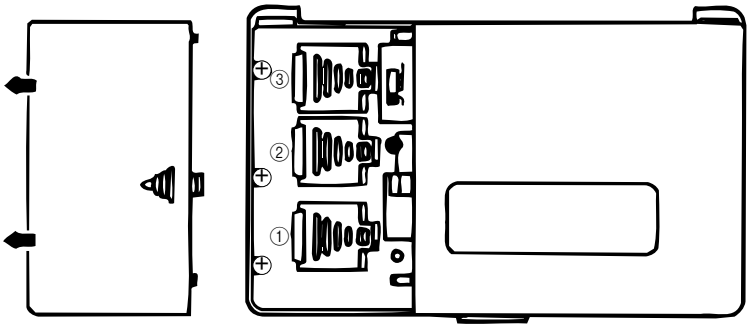
The screen example shown here is the SF-4900L. The capacity values(FREE and USED total) is different on the SF-4700L display.

3. BATTERY REPLACEMENT

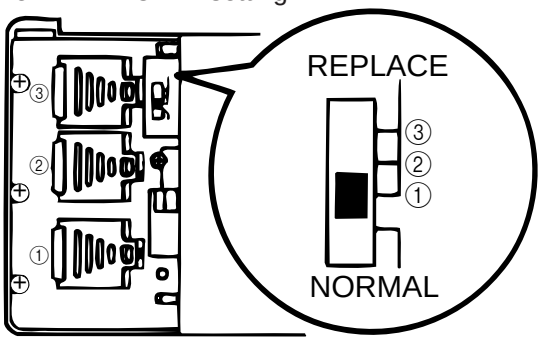
Before replacing the batteries, note the following precaution:

- Be sure to replace all batteries with a full set of new ones, and do not mix old batteries with new ones.

1. Press **OFF** to switch power OFF.
2. Slide the battery compartment cover in the direction indicated by the arrow.

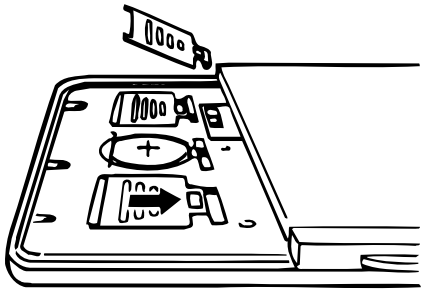


3. Slide the battery switch to the "REPLACE 1" setting.



4. Remove the battery holder by sliding it in the direction indicated by the arrow in the illustration.

Caution
Be sure to remove only one battery at a time. Otherwise, you will lose all data stored in memory.



5. Replace the old battery with a new one, making sure that the positive (+) side of the new battery is facing up (so you can see it).
6. Replace the battery holder and faten it in place.
7. Slide the battery switch to the "REPLACE 2, 3" setting and repeat steps 4 through 6 for the other batteries.
   - Be sure to replace all three batteries, using CR2032 lithium batteries only. Never mix old batteries with new ones.
8. Slide the battery switch to the "NORMAL" setting.
   - You will not be able to turn the unit on if the battery switch is not in the "NORMAL" setting.
9. Replace the battery compartment cover.
   - The Home Time screen always appears whenever you turn power on for the first time after replacing batteries.
10. Check the Home Time setting and make changes if necessary.

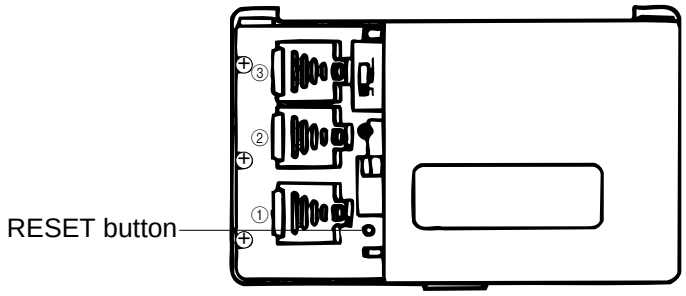
4. RESET OPERATION

Warning!

The following procedure erases all data stored in the memory of the SF Unit. Perform the following operation only when you want to delete all data and initialize the settings of the SF Unit.
Remember-you should always keep copies of important data by writing it down, by transferring it to another SF-4700L (SF-4900L).

To reset the SF Unit's memory

1. Press **ON** to switch power on.
2. Open the battery compartment and press the RESET button.



- At this time the following message appears on the display.

```
CLEAR MEMORY AND
SET UP THE UNIT
FOR OPERATION?
          YES/NO
```

3. Make sure that YES is highlighted. If NO is highkighted, press ◀ to move the highlighting to YES.

Warning!
The next step deletes all data stored in the SF Unit's memory. Make sure that you really want to delete the data before you continue!

4. Press **SET** to start the RESET procedure.
   - After the RESET operation is complete, the LANGUAGE screen appears on the display.
5. Select a system language.
   - After you set the system language, the Home Time Screen appears.
6. Check the Home Time setting and make changes if necessary.

Following the reset operation described above, the Home Time display appears and the SF Unit settings initialized as noted below.

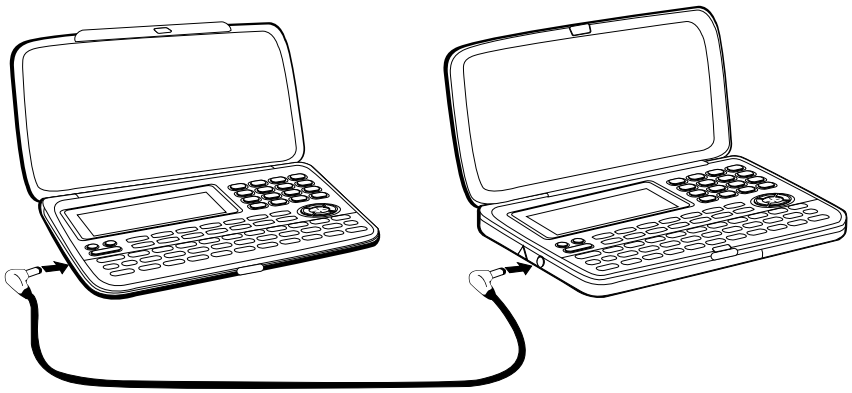
Home Time:	LON
	JAN/1/1998 THU
	12:00 AM
	12-hour format
World Time:	NYC
Daily Alarm:	12:00 PM
Sound:	Schedule alarm — ON
	Reminder alarm — ON
	Daily alarm — OFF
	Key — ON
Messages:	English
Character input:	CAPS

5. TO SAVE THE DATA

SF-4700L/4900L can transfer the customer's data to another SF-4700L/4900L with memory protection only when replacing the LCD or the outer case.

To connect SF-4700L (4900L) to another SF-4700L (4900L)CSF Unit

1. Make sure that the power of both units are switched off.
2. Remove the covers from the data communications jacks on the two SF-4700L (4900L).
3. Connect the two units using the SB-62 cable.



How to transfer the data

In the following explanations, Unit 1 refers to the transmitting Unit whereas Unit 2 refers to the receiving Unit.

STEP	OPERATION	DISPLAY	NOTE
1	Press [ON] button on Unit 2.	Mode display before power off	
2	Press RESET button on Unit 2.	CLEAR MEMORY AND SET UP THE UNIT FOR OPERATION ? YES/NO	
3	Press [SET] button on Unit 2.	After displaying ALL RESET ! ✻LANGUAGE(1-5)✻✻ 1 DEUTSCH 2 ENGLISH 3 ENPANOL	
4	Press [SET] button on Unit 2.	WATCH mode display	
5	Press [CAL] button on Unit 2.	0	
6	Press [1], and then [TIME DATE] button on Unit 2.	1901/	

STEP	OPERATION	DISPLAY	NOTE
7	Press [2] and then [TIME DATE] button on Unit 2.	1901/ 2/	
8	Press [3] and then [M+] button on Unit 2.	M SUN 1901/ 2/ 3	
9	Press [TEL] button on Unit 2.	TEL mode display	
10	Press [ON] button on Unit 1.	Mode display before power off	
11	Press [TEL] button on Unit 1.	TEL mode display	
12	Press [FUNC] button on both Unit 1 and Unit 2.	X ITEM EDIT X ITEM DELETE X ITEM COPY 4 SOUND	
13	Press [FUNC] button on both Unit 1 and Unit 2.	X TO SECRET 2 ALL DELETE 3 LABEL EDIT 4 DATA COMM	
14	Press [4] button to select "4 DATA COMM"on both Unit 1 and Unit 2.	1 SEND 2 RECEIVE 3 SET UP PAR.	Set SET UP PAR to PARITY N, BIT LENGTH 7 and BPS 9600 on Unit1.
15	Press [2] button to select "2 RECEIVE"on Unit 2.	RECEIVE DATA TO STOP PRESS(ESC)	
16	Press [1] button to select "1 SEND" on Unit 1.	1 ONE ITEM 2 MODE DATA 3 ALL DATA -SEND-	
17	Press [3] button to select "3 ALL DATA" on Unit 1.	SEND ALL DATA ? SET / ESC	
18	Press [SHIFT] and then [SET] button on Unit 1.	Unit 1 : SENDING Unit 2 : RECEIVE OK Within a few minutes, both Units display become TEL mode.	
19		Confirm the data displayed on Unit 2.	Data transmission completed

6. PIN FUNCTION

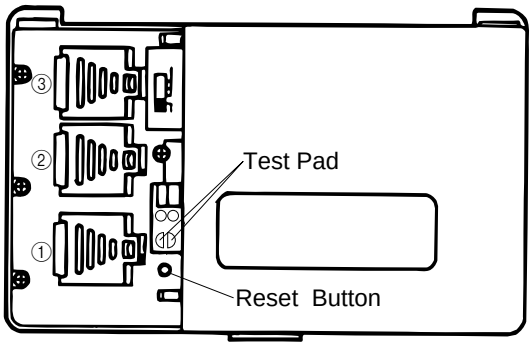
CPU μPD3058Ap-009 : COB (Chip on Board)

NOTE: The CPU is bonding on the PCB. If the CPU is defective, replace the PCB ASSY (A140745) because the CPU cannot be replaced.

Pin No.	Pin Name	Input/Output	Function
1	CSRA1	O	Control for EL driver
2	CSRA2	O	Chip selecting signal for RAM
4	WEB	O	Write enable signal for RAM
5 ~ 21	RA16,RA15,A14 ~ A0	O	Address bus
22 ~ 29	IO7 ~ IO0	I / O	Data bus
30 ~ 45	KY15 ~ KY0	I	Key input signal
46	SW	I	Detection signal for battery cover
48	DN	O	Serial data output
50	SOUTB	O	Control for serial data output
51	SIN	I	Serial data input
52	VDD	I	Power supply to digtal circuit
53	TEST	—	TEST terminal
54	VTM	O	Voltage for the intenal circuit of CPU
55	OSC0	I	Clock for CPU
56	OSC1	O	Clock for CPU
57	GND	—	GND
58 ~ 61	V4 ~ V1	O	Bias voltage to LCD
62	INT0	I	Control for forced power off
63	STNT	I	Control for VLCD
64	VLCD	I	Power supply to LCD
65 ~ 160	S95 ~ S0	O	LCD driver signal (common)
161 ~ 193	C32 ~ C0	O	LCD driver signal (segment)
194	GND	—	GND
195	BZ1	O	Buzzer signal output
196	BZ2	O	Buzzer signal output
197	VDD	I	Power suply to digital circuit

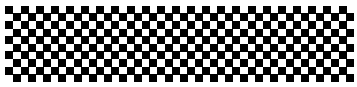
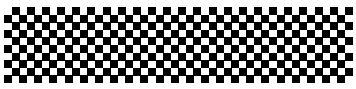
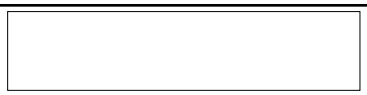
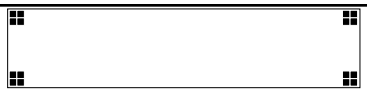
7. DIAGNOSTIC PROGRAM

CAUTION:Performing this program, data saved in the Unit are disappeared (erased).
Save these data to another SF-4700L(4900L) referring to 5. TO SAVE THE DATA.



Bottom View

To enter the diagnostic program, proceed as follows;
1 : Turn the power off, and then remove the battery cover.
2 : Press the power switch [**ON**] button while shorting the Test pad.

STEP	OPERATION	DISPLAY	NOTE
1	Press [ON] while shorting the Test pad.	SELF TEST PROG. PRESS SET KEY QUIT BY OFF CASIO FEB 1996	Press [OFF] button at this step, data saved in the Unit are not disappeared (erased).
2	Press [set] button.	TEST 2 MEMORY MENU 3 KEY 4 BUZZER 1 DISP 5 I/F	Main menu
3	Press [1] button to select "1 DISP".	DISP 4 RVS 1 WHITE 3 FRAME 2 BLACK 4 DOT4 3 CHECK 5 TIME	Display Check
4	Press [1] button to select "1 WHITE".	All dots off	
5	Press [2] button to select "2 BLACK".		
6	Press [3] button to select "3 CHECK".		
7	Press [4] button to select "4 RVS".		
8	Press [5] button to select "5 FRAME".		
9	Press [6] button to select "6 DOT4".		
10	Press [ESC] button.	TEST 2 MEMORY MENU 3 KEY 4 BUZZER 1 DISP 5 I/F	Main menu

STEP	OPERATION	DISPLAY	NOTE
11	Press [2] button to select "2 MEMORY".	MEMORY 3 WR2 4 READ2 1 WR1 5 DUMP 2 READ1 6 CHKSUM	Memory Check
12	Press [1] button to select "1 WR1".	After displaying RAM WRITE1; MEMORY 3 WR2 4 READ2 1 WR1 5 DUMP 2 READ1 6 CHKSUM	
13	Press [2] button to select "2 READ1".	After displaying EXECUTING!! COMPLETE !! **KB	SF-4700L indicates "64KB" SF-4900L indicates "128KB"
14	Press [ESC] button.	MEMORY 3 WR2 4 READ2 1 WR1 5 DUMP 2 READ1 6 CHKSUM	
15	Press [6] button to select "6 CHKSUM".	For example, TY SZ SUM XOR FE 0 128 2C9D C7	Check the SUM value
16	Press [ESC] button.	MEMORY 3 WR 2 4 READ 2 1 WR 1 5 DUMP 2 READ 1 6 CHKSUM	
17	Press [ESC] button.	TEST 2 MEMORY MENU 3 KEY 4 BUZZER 1 DISP 5 I/F	Main menu
18	Press [LIGHT] button.	TEST 2 MEMORY MENU 3 KEY 4 BUZZER 1 DISP 5 I/F	Make sure that the backlight turns on.
19	Press [3] button to select "3 KEY".	KEY 1 RANDOM 2 AUTO	Key Check
20	Press [2] button to select "2 AUTO".	No display	
21	7, 8, 9, / 4, 5, 6, * 1, 2, 3, – 0, ., =, + ON, OFF, TEL, MEMO HOME, CAL, TIME, NEXT DISP, LIGHT REMINDER, SCHEDULE CALENDAR, SECRET SMBL, DEL	The following numbers will be shown. 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	The display shows four lines at a time and the rest of the numbers are scrolled. Press the buttons in order. If a wrong button is pressed, a buzz sound

STEP	OPERATION	DISPLAY	NOTE
21	SEARCH, LEFT CURSOL KEY UP CURSOL KEY DOWN CURSOL KEY RIGHT CURSOL KEY ESC, Q, W E, R, T, Y U, I, O, P CAPS,SHIFT, Z, X D, F, G, H J, K, L, RETURN FUNC, SHIFT, Z, X C, V, B, N M, SPACE	32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69	
22	Press [set] button.	After displaying 68 69 70; TEST 2 MEMORY MENU 3 KEY 4 BUZZER 1 DISP 5 I/F	Main menu
23	Press [LIGHT] button.	TEST 2 MEMORY MENU 3 KEY 4 BUZZER 1 DISP 5 I/F	Make sure that the back light turns off.
24	Press [4] button to select "4 BUZZER".	BUZZER 1 BEEP 2 ALARM 1 3 ALARM 2	
25	Press [2] button to select "2 ALARM".	EXECUTING ! !	Make sure that the buzzer sounds.
26	Press [ESC] button.	BUZZER 1 BEEP 2 ALARM 1 3 ALARM 2	Alarm stops.
27	Press [ESC] button.	TEST 2 MEMORY MENU 3 KEY 4 BUZZER 1 DISP 5 I/F	
Prepare one more unit of SF-4700L (or SF-4900L) and connect both units with cable SB-62 then put newly prepared unit on the check mode. In the following explanations, Unit 1 is checking uint whereas Unit 2 is newly prepared unit.			
28	Press [5] buttons on the both Unit 1 and Unit 2 to select "5 I/F".	I/F 1 TRANS 2 RECEIV 3 ASCII 7N9 4 LOOP	

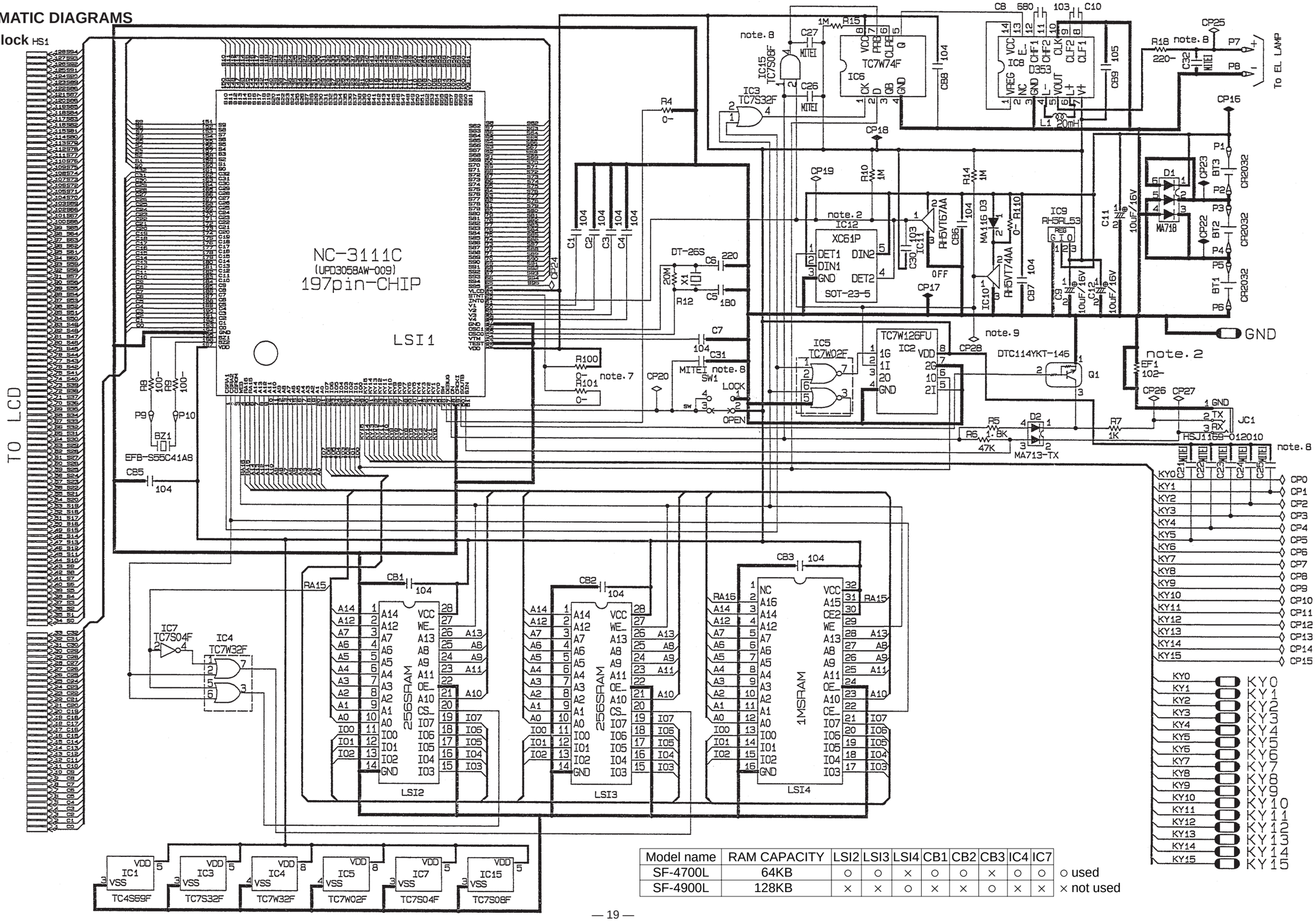
STEP	OPERATION	DISPLAY	NOTE
29	Press [1] buttons on Unit 1 to select "1 TRANS".	EXECUTING ! !	Ready to transmit
30	Press [2] buttons on Unit 2 to select "2 RECEIVE".	Unit 1 indicates "EXECUTING". Unit 2 shows scrolling HHHHHH.	During the transmission
31	Press [ESC] button on Unit 1.	TRANS BREAK ! !	Transmission completed
32	Press [ON] button on Unit 1 and 2.	I/F 1 TRANS 2 RECEIV 3 ASCII 7N9 4 LOOP	
33	Press [1] button on Unit 2 to select "1 TRANS".	EXECUTING ! !	Ready to transmit
34	Press [2] buttons on Unit 1 to select "2 RECEIVE".	Unit 1 shows scrolling HHHHH. Unit 2 indicates "EXECUTING".	During transmission
35	Press [ESC] on Unit 2.	TRANS BREAK ! !	Transmission completed
36	Press [ON] button on Unit 1 and 2.	I/F 1 TRANS 2 RECEIV 3 ASCII 4 LOOP	
37	Push RESET button on Unit 1	Indicates the TEL menu	
38	Press [OFF] button.		Check program completed

8. ERROR MESSAGE

Message	Meaning	Action
NO DATA!	Search operation attempted when no data is stored in memory.	Current search operation cannot be performed.
NOT FOUND!	Data specified in search operation does not exist in memory.	Change specification or cancel search.
MEMORY FULL!	No more room in memory for storage of data.	Delete unnecessary data items from memory.
ALARM TIME ALREADY USED!	Attempt to set a Schedule Keeper or a Reminder alarm time that is already used for another entry.	Set different alarm time or change the existing alarm time to another one.
ALARM TIME ALREADY PASSED!	Attempt to set a Schedule Keeper alarm time for a time / date that is already passed.	Set different alarm time (for a future time/date).
SECRET DATA!	Alarm for a secret memory area data item is sounding.	Enter the secret memory area to veiw details of the alarm.
PASSWORD MISMATCHI!	Attempt to enter the secret memory area using a password that does not match the one preset for the secret area.	Use the correct password.
TRANSMIT ERROR!	Error during data communications.	Cancel the data communications operation and try again.
DATA ERROR! CHECK YOUR USER'S GUIDE FOR PROCEDURE!	Data corrupted by strong impact, electrostatic charge, etc.	See page 5 ~ 6 of this manual.
ARE YOU USING A NEW UNIT FOR THE FIRST TIME? YES/NO	This is the first time you have turned the power on after purchasing the unit.	
CLEAR MEMORY AND SET UP THE UNIT FOR OPERATION? YES/NO	Data corrupted by strong impact, electrostatic charge, etc.	See page 5 ~ 6 of this manual.
WEAK BATTERIES! CONSULT YOUR USER'S GUIDE IMMEDIATELY!	The batteries are getting weak.	Replace batteries immediately (page 8).

9. SCHEMATIC DIAGRAMS

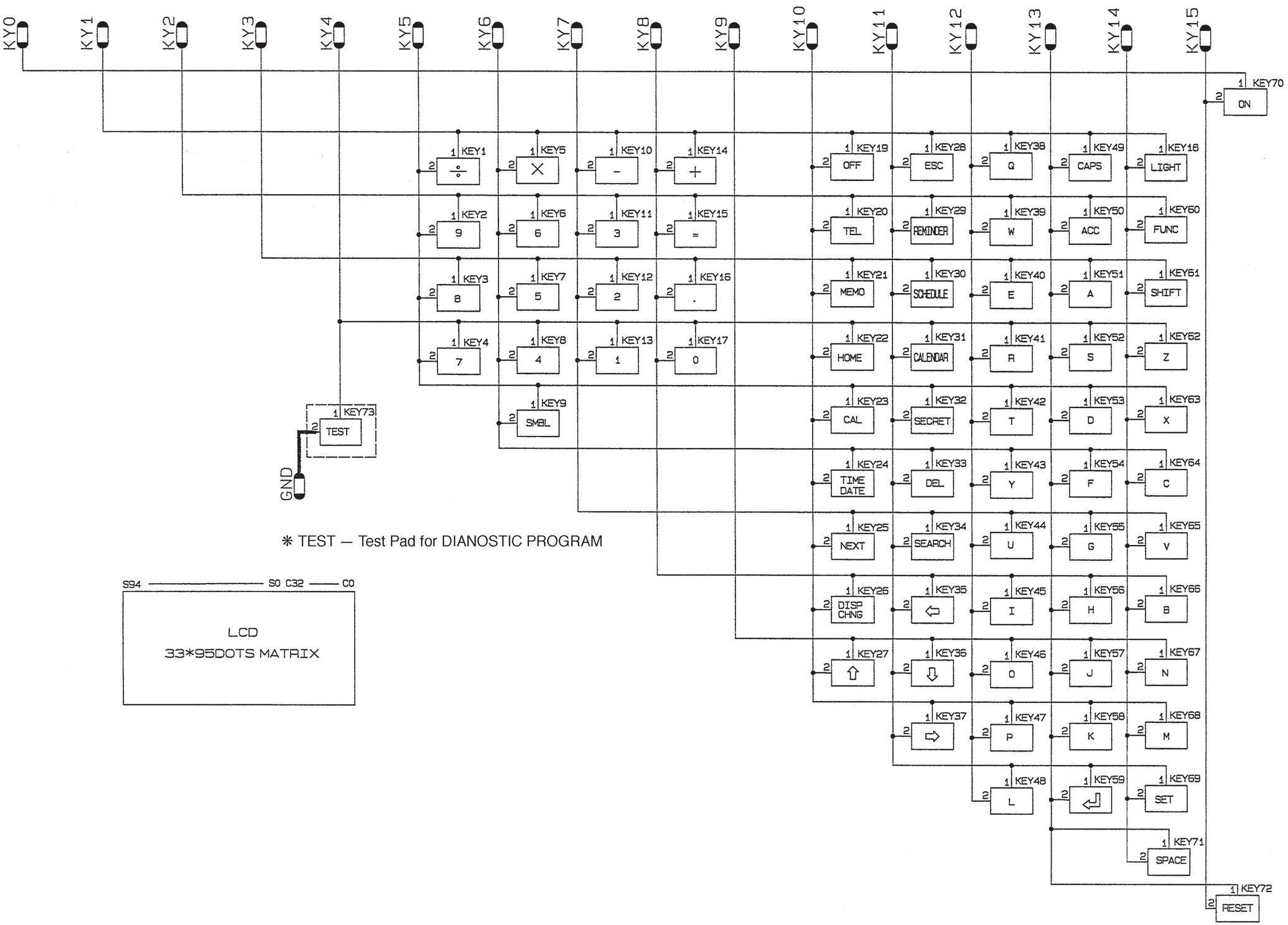
Main Block HS1



Model name	RAM CAPACITY	LSI2	LSI3	LSI4	CB1	CB2	CB3	IC4	IC7
SF-4700L	64KB	○	○	×	○	○	×	○	○
SF-4900L	128KB	×	×	○	×	×	○	×	×

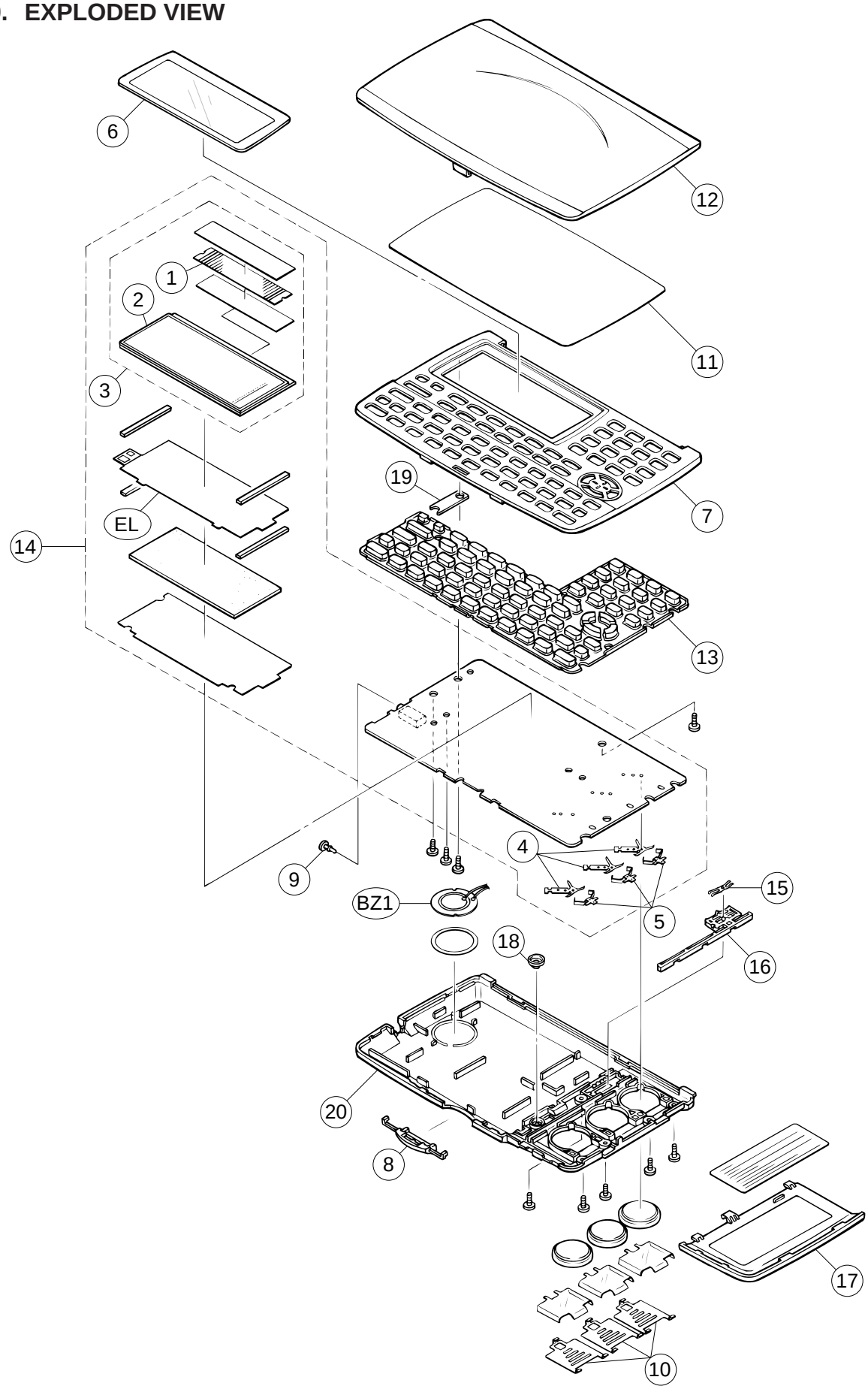
○ used
× not used

Key Block



* TEST — Test Pad for DIANOSTIC PROGRAM

10. EXPLODED VIEW



11. PARTS LIST

N	Item	Code No.	Parts Name	Specification	Quantity				R
					4700L		4900L		
					A	B	E	F	
		LCD ASSY							
N	1	6420 6170	HEAT SEAL	A341754-1	1	1	1	1	B
N	2	3335 6617	LCD	CD1126-TN(A)	1	1	1	1	B
		PCB ASSY							
	LSI2, 3	2012 3192	LSI/S-RAM	TC55257DFL-7085V	2	2	0	0	B
	LSI4	2012 1659	LSI/S-RAM	TC551001BFL-10V(S)	0	0	1	1	B
	X1	7110 0642	OSCILLATOR/QUARTZ	DT-26S	1	1	1	1	C
	JCI	3501 6538	JACK	HSJ1169-012010	1	1	1	1	C
N	IC2	2105 5516	IC/MOS	TC7W126FU-TE12L	1	1	1	1	C
	IC3	2105 1568	IC/MOS	TC7S32F-TE85R	1	1	1	1	C
	IC4	2105 4543	IC/MOS	TC7W32F-TE12L	1	1	0	0	C
	IC5	2101 1142	IC/MOS	TC7W02F-TE12L	1	1	1	1	C
	IC6	2105 3269	IC/MOS	TC7W74F-TE12L	1	1	1	1	C
	IC7	2105 1561	IC/MOS	TC7S04F-TE85R	1	1	0	0	C
N	IC8	2113 0374	IC/MOS	D353-C	1	1	1	1	C
N	IC9	2105 6385	IC/MOS	RH5RL53AA-T1	1	1	1	1	C
	IC15	2105 1120	IC/MOS	TC7S08F-TE85R	1	1	1	1	C
	Q1	2259 0959	TRANSISTOR/DIGITAL	DTC114YKT-146	1	1	1	1	C
	D1	2390 0847	DIODE/SCHOTTKY	MA718-(TX)	1	1	1	1	C
	D2	2390 0364	DIODE/SCHOTTKY	MA713-TX	1	1	1	1	C
N	3	6420 6490	LCD ASSY	A341805B*1 C	1	1	1	1	B
N	EL	6420 8020	ELECTRO LUMINESCENCE	C442109-1	1	1	1	1	B
N	4	6420 6160	SPRING/BATTERY	A341753-1	3	3	3	3	X
	5	6408 9410	SPRING/BATTERY	C311911-2	3	3	3	3	X
		COMPONENTS							
N	6	6420 6150	PANEL/DISPLAY	A341745-1	1	0	0	0	B
N	6	6420 6300	PANEL/DISPLAY	A341745-2	0	1	0	0	B
N	6	6420 6350	PANEL/DISPLAY	A341745-3	0	0	1	0	B
N	6	6420 6400	PANEL/DISPLAY	A341745-4	0	0	0	1	B
N	7	6420 6080	CASE/UPPER	A140694-1	1	1	1	1	X
N	8	6420 6130	KNOB	A240986-1	1	1	1	1	C
	9	6512 6040	CAP	C311730-1	1	1	1	1	C
	BZ1	3122 2380	BUZZER	EFB-S55C41A8	1	1	1	1	C
N	10	6420 6210	HOLDER/BATTERY	A442731-1	3	3	3	3	C
N	11	6420 6181	LABEL	A442722A-1	1	0	0	0	X
N	11	6420 6311	LABEL	A442722A-2	0	1	0	0	X
N	11	6420 6361	LABEL	A442722A-3	0	0	1	0	X
N	11	6420 6411	LABEL	A442722A-4	0	0	0	1	X
N	12	6420 6100	HARD COVER	A140696-1	1	0	0	0	X
N	12	6420 6290	HARD COVER	A140696-2	0	1	0	0	X
N	12	6420 6340	HARD COVER	A140696-3	0	0	1	0	X
N	12	6420 6390	HARD COVER	A140696-4	0	0	0	1	X
N	13	6420 6110	RUBBER/CONTACT	A140697-1	1	1	1	1	C
N	14	6420 6050	PCB ASSY	A140745*1 C	1	1	0	0	B
N	14	6420 6330	PCB ASSY	A140745*2 C	0	0	1	1	B
	15	6410 0150	SPRING/CONTACT	C412167-2	1	1	1	1	C
N	16	6420 6120	KNOB	A240985-1	1	1	1	1	C
N	17	6420 6140	COVER/BATTERY	A240987-1	1	1	1	1	C
	18	6410 0170	RUBBER/KEY	C311028-3	1	1	1	1	C
N	19	6420 6220	CUSHION	A442763-1	1	1	1	1	C

Parts prices will be informed separately by Parts Price List.

Notes: N – New parts
Q – Quantity used per unit
R – Rank

B: SF-4700L B.O.S.S
A: SF-4700L Others
F: SF-4900L B.O.S.S
E: SF-4900L Others

R – A : Essential
B : Stock recommended
C : Others
X : No stock recommended

N	Item	Code No.	Parts Name	Specification	Q	Available		R
N	20	6420 6090	CASE/LOWER	A140695-1	1	made in Malaysia	**A/ E**	X
N	20	6420 8350	CASE/LOWER	A140695-2	1		**A/ E** for U.S.A. **B/ F**	X
N	20	6420 6280	CASE/LOWER	A140695-4	1	made in Japan	**A/ B/ E/ F**	X

Notes: N – New parts
Q – Quantity used per unit
R – Rank

B: SF-4700L B.O.S.S
A: SF-4700L Others
F: SF-4900L B.O.S.S
E: SF-4900L Others

R – A : Essential
B : Stock recommended
C : Others
X : No stock recommended

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